

PATENT
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$$(A)_n-(Th)_m-(B)_o-(\text{Target antigenic site})-X$$

or

$$(A)_n-(B)_o(Th)_m-(B)_o-(\text{Target antigenic site})-X$$

or

$$(\text{Target antigenic site})-(B)_o-(Th)_m-(A)_n-X$$

or

$$(Th)_m-(B)_o-(\text{Target antigenic site})-(A)_n-X$$

wherein.

A is an amino acid or a general immunostimulatory sequence, where n is more than one, the individual A's may be the same or different;

B is selected from the group consisting of amino acids, $-HCH(X)CH_2SCH_2CO-$, $-NHCH(X)CH_2SCH_2CO-$ (-N)Lys-, $-NHCH(X)CH_2S$ -succinimidyl(-N)Lys, and $-NHCH(X)CH_2S$ -(succinimidyl)-;

Th is an artificial helper T cell epitope selected from the group consisting of SEQ ID NOS:6-22, 105, 31-35 and an analog thereof;

"Target antigenic site" is selected from the group consisting of a B cell epitope, a peptide hapten, and a immunologically reactive analog thereof;

X is amino acid α -COOH or CONH₂,

n is from 1 to about 10;

m is from 1 to about 4; and

o is from 0 to about 10.

- Q2
- Q3
- Q4
9. A peptide immunogen according to Claim 7 selected from the group consisting of SEQ ID NOS: 104, and 105.
 11. A peptide immunogen according to Claim 10 selected from the group consisting of SEQ ID NOS:110 - 118, and 119.
 13. A peptide immunogen according to Claim 12 selected from the group consisting of SEQ ID NOS:126 - 129, and 136 - 151.